

Claims

- [c1] 1. An arrangement for incorporating a catalyst directly into a compressor of a compressed air system in a vehicle, said arrangement comprising:
a compressor for generating compressed air and a connection for conveying compressed air generated by the compressor to a remaining portion of a compressed air system of a vehicle; and
an oxidation catalyst adapted for purifying generated compressed air, said oxidation catalyst being integrally arranged within the compressor thereby establishing a combined compressor and catalytic device.
- [c2] 2. The arrangement as recited in claim 1, wherein the oxidation catalyst is fit into a space defined in a cylinder head at an outlet of the compressor.
- [c3] 3. The arrangement as recited in claim 1, wherein the oxidation catalyst further comprises a plurality of separate catalyst units, each with catalytically active material.
- [c4] 4. The arrangement as recited in claim 1, further comprising:
a temperature control means for controlling the temper-

ature of compressed air generated by the compressor.

[c5] 5. The arrangement as recited in claim 4, wherein the temperature control means comprises an electric heating device.

[c6] 6. The arrangement as recited in claim 4, wherein the temperature control means comprises a cooling device.

[c7] 7. The arrangement as recited in claim 1, wherein the engine is a diesel engine.

[c8] 8. A method for providing a compressed air system in a vehicle, said method comprising:
generating compressed air by means of a compressor;
feeding compressed air generated by the compressor to a compressed air consuming system in the vehicle;
purifying the generated compressed air in an oxidation catalyst positioned in direct connection with an outlet of the compressor, the air being purified by the oxidation catalyst being fed to the compressed air consuming system; and
conducting the purification of compressed air utilizing a combined compressor and catalyst device in which the oxidation catalyst is integrally arranged within the compressor.

[c9] 9. The method as recited in claim 8, further comprising:

providing a device for generating and purifying the compressed air, the device comprising a compressor and an oxidation catalyst, the oxidation catalyst being adapted for purifying the generated compressed air in direct connection with an outlet of the compressor, the oxidation catalyst being integrally arranged within the compressor and together with the compressor constitutes a combined compressor and catalyst device.

[c10] 10. An arrangement for establishing a vehicular transported compressor that integrally incorporates a catalyst within the compressor, said arrangement comprising: a vehicle having a receiving space for a catalyzing air compressor, said receiving space being configured to accommodate an integrally constructed air compressor with an oxidation catalytic treatment stage confined within said air compressor for purifying generated air; and
a catalyzing air compressor having a cylinder-defining body located in said receiving space, said cylinder-defining body of said catalyzing air compressor having an oxidation catalytic treatment stage compartment defined within said body.

[c11] 11. The arrangement as recited in claim 10, further comprising:
an oxidation catalyst being located in said oxidation cat-

alytic treatment stage compartment; and
said oxidation catalytic treatment stage compartment
being fit into a space defined in a cylinder head of the
cylinder-defining body at a compressed air outlet from a
defined cylinder of said catalyzing air compressor.

[c12] 12. The arrangement as recited in claim 11, further comprising:

said oxidation catalytic treatment stage compartment
and said oxidation catalyst being located downstream
from a lamella-based exhaust valve associated with a
compression cylinder of said catalyzing air compressor.

[c13] 13. The arrangement as recited in claim 10, further comprising:

said oxidation catalytic treatment stage compartment
and said oxidation catalyst being located downstream
from a lamella-based exhaust valve associated with a
compression cylinder of said catalyzing air compressor.

[c14] 14. The arrangement as recited in claim 13, further comprising:

said receiving space having an interior sufficiently large
to accommodate an integrally constructed catalyzing air
compressor with an oxidation catalytic treatment stage
compartment, said interior of said receiving space further
being sufficiently small to preclude installation of a

non-integrally constructed air compressor and oxidation catalytic treatment stage compartment therein.